

Colorado Department of Public Health and Environment (CDPHE)

Occupational Health and Safety Surveillance Program (Fundamental Program)

Annual Report: July 2017- June 2018

Principal Investigator: Mike Van Dyke, PhD, CIH- (303) 692-6375, mike.vandyke@state.co.us

Program Manager: Roberta Smith, RN, MSPH,CIC,CIH, COHN-S (303) 692-2791  
roberta.smith@state.co.us

Website: <http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251607754915>

MAJOR OUTPUTS/ PRODUCTS

Surveillance Data

- Reported Colorado’s 2015 data for 20 of 24 Occupational Health Indicators for NIOSH for publication by the Council of State and Territorial Epidemiologists (CSTE).
- Reported Colorado’s 2017 data of adult elevated blood lead to NIOSH’s Adult Blood Lead Epidemiology and Surveillance (ABLES) Program.
- Reported Colorado’s 2016 Census of Fatal Occupational Injuries (CFOI) cases to the Bureau of Labor Statistics (BLS).

Table 1: Publications

Date	Title
November 2017	Marijuana and acute health care contacts in Colorado. Wang GS, Hall K, Vigil D, Banerji S, Monte A, <b>VanDyke M</b> . <i>Prev Med</i> . 2017 Nov;104:24-30.
January 2018	Census of Fatal Occupational injuries in 2016 (CDPHE press release)
January 2018	Industrial Hygiene in Healthcare. <i>The Synergist</i> . January 2018. <b>Roberta Smith</b>
April 13, 2018	<b>Smith R</b> , Hall KE, Etkind P, <b>Van Dyke M</b> . Current Marijuana Use by Industry and Occupation- Colorado, 2014-2015. <i>MMWR Morb Mortal Wkly Rep</i> 2018;67:409-413.
May 2018	Mental Health-related Emergency Department Visits Associated With Cannabis in Colorado. Hall KE, Monte AA, Chang T, Fox J, Brevik C, Vigil DI, <b>Van Dyke M</b> , James KA. <i>Acad Emerg Med</i> . 2018 May;25(5):526-537.

Presentations and Outreach Events

In November 2017, due to the popularity of our first marijuana worker safety training based off the “Guide for Worker Safety and Health in the Marijuana Industry” a second health and safety training for the marijuana industry was held in partnership with the Mountains and Plains ERC (Center for Work, Health and Environment). This event was also recorded as a webinar that is now available on the learning management system through the MAP ERC. The program partnered both within the Colorado Department of Public Health and with a variety of stakeholders within this reporting period. Mike Van Dyke, the program’s principal investigator continued to direct a graduate level course at the Colorado School of Public Health. Program Manager, Roberta Smith also gave occupational health and epidemiology

focused lectures at the Colorado School of Public Health. She also gave a variety of lectures in partnership with occupational health, industrial hygiene, and safety related organizations. In October 2017, Roberta was a keynote speaker at the Canadian Agriculture Safety Association conference. In May 2018, Roberta was a co-presenter at the AIHce conference for three separate sessions. The first was a PDC on the Selection of Surface Disinfectants in Healthcare, the second was as part of a panel on cannabis, and the third was on health and safety in the marijuana industry. The third presentation received recognition from AIHA as being the second best rated presentation at the conference. Because of this successful presentation, she has been asked by AIHA leadership to write a blog on the experience.

**Table 2: Presentations**

<b>Date</b>	<b>Conference/ Meeting</b>	<b>Title</b>
8/23/2017 and 8/20/2017	Environmental Health Sanitarians	PPE and Infection Control: <b>Roberta Smith</b>
9/6/2017	Association of Occupational Health Professionals	OSHA and the Joint Commission Compliance Matrix. <b>Roberta Smith</b> and Cynthia Ellwood
9/8/2017	Association of Occupational Health Professionals	Does the Glove Fit? <b>Roberta Smith</b> and Cynthia Ellwood
9/14/2017	WestON	Health and Safety in the Marijuana Industry. <b>Roberta Smith</b>
9/20/2017	Colorado Long Term Care Ombudsman Group	Healthcare Worker Immunizations. <b>Roberta Smith</b> and Rosemary Spence
10/3/2017	Canadian Agriculture Safety Association	Health and Safety in the Marijuana Industry. <b>Roberta Smith</b>
10/19/2017	EEOH 6619	Health and Safety in the Marijuana Industry. <b>Roberta Smith</b>
10/19/2017	Colorado Safety Association	Health and Safety in the Marijuana Industry. <b>Roberta Smith</b>
Fall 2017	Department of Environmental and Occupational Health, Colorado School of Public Health course EHOH 6619- Environmental Exposures and Health Effects	Course Director- <b>Mike Van Dyke</b>
10/26/2017	EHOH 6619: Personal Protective Equipment Lecture/ Lab	<b>Roberta Smith</b>
11/15/2017	Marijuana Cultivation Workers	Worker Health and Safety Training. <b>Roberta Smith</b> with additional partners

1/12/2018	Colorado Occupational Health Nurse Network	Does the Glove Fit? <b>Roberta Smith</b> and Cynthia Ellwood
1/25/2018	Long Term Care Providers, Pueblo CO	Bloodborne Pathogen Presentation. <b>Roberta Smith</b>
1/25/2018	Long Term Care Providers, Pueblo, CO	Healthcare Worker Immunizations. <b>Roberta Smith</b> and Rosemary Spence
1/31/2018	Long Term Care Surveyor Team	Cleaning and Disinfection Principles. <b>Roberta Smith</b>
1/31/2018	Long Term Care Surveyor Team	Healthcare Construction 101. <b>Roberta Smith</b>
2/1/2018	Air Quality Collaboration Meeting	Mold: The Fungus Among Us. <b>Roberta Smith</b>
2/20/2018	EPID 6635 Colorado School of Public Health	"Environmental factors, reservoirs, and modes of transmission" <b>Roberta Smith</b>
2/21/2018	Environmental and Occupational Policy Analysis and Practice Course- Colorado School of Public Health	Occupational Health Policy. <b>Roberta Smith</b>
3/10/2018	Denver Rose Society	Ergonomics in the Garden. <b>Roberta Smith</b>
3/13/2018	Colorado Chapters of ASSE and AIHA Joint Meeting	Colorado Occupational Health Indicators. <b>Roberta Smith</b>
3/29/2018	Buzz on Cannabis: Health and Safety in the Workplace Symposium- Berkeley, CA	Identifying and Reducing Hazards in Cultivation Facilities. <b>Roberta Smith</b>
5/1/2018	Environmental Health Sanitarians	School Science and Vocational Ventilation. <b>Roberta Smith</b>
5/19/2018	AIHce Conference, Philadelphia, PA	PDC: The Selection and Use of Environmental Surface Disinfectants in Healthcare
5/21/2018	AIHce Conference, Philadelphia, PA	The Emerging Cannabis Industry: Worker Safety and Health, Part I. Bradley King, NIOSH; Michael Kosnett, University of Colorado School of Medicine; <b>Roberta Smith</b> , Colorado Department of Public Health & Environment
5/22/2018	AIHce Conference, Philadelphia, PA	Days of Our Lives: Practical Applications for the IH Laboratory and their Customers. Part 4: A Stranger in Town: HSE Role in Protecting Worker

		Encounters with Illicit Drugs, <b>Roberta Smith*</b>
6/12/2018	CSTE National Conference	Roundtable : Oil and Gas Extraction Occupational Health Working Group: Objectives and Current Activities. Kyla Retzer, NIOSH and <b>Roberta Smith</b>
6/13/2018	APIC National Conference, Minneapolis, MN	Waterborne Pathogen Risk Management: A mandate issued, a team needed, what now? Linda Dickey, John Martinelli, <b>Roberta Smith</b>

\*Ranked #2 in the best-rated talk at the AIHce Conference.

## AWARDS AND RECOGNITION

### *2017 Critics' Choice Award*

The Critics' Choice Award honors a publication completed in 2017. The AIHA® Publications Committee evaluates all publications and selects those based on the 2017 Critics' Choice Award. The Critics' Choice Award honors a publication completed in 2017. The AIHA® Publications Committee evaluates all publications and selects those based on their impact on the profession, originality, and quality of writing. This year's recipients are Erica J. Stewart, CIH, FAIHA, HEM and **Roberta Smith, RN, MSPH, CIC, COHN-S, CIH**, the editors of *Guidelines for the Selection and Use of Environmental Surface Disinfectants in Healthcare*.ir impact on the profession, originality, and quality of writing. This year's recipients are Erica J. Stewart, CIH, FAIHA, HEM and **Roberta Smith, RN, MSPH, CIC, COHN-S, CIH**, the editors of *Guidelines for the Selection and Use of Environmental Surface Disinfectants in Healthcare*.

### AIHA Outstanding Project Team Award

Roberta Smith, who is the leader of the infection control subcommittee, a part of the AIHA healthcare working group, was the recipient of the Outstanding Project Team Award presented at the 2018 AIHce conference.

## PROGRAM ACTIVITIES

### Public Health Surveillance

**OHI data:** The Colorado program annually reports Colorado's state-wide Occupational Health Indicators (OHI) data for 20 of the 24 indicators. Information on these measures were provided to NIOSH and CSTE. The information was subsequently updated on the Colorado Department of Public Health's website. Colorado's Census of Fatal Occupational Injuries (CFOI) also operates under our surveillance program.

Our program manager participated in the CSTE Occupational Health Workgroup meetings at WestON (September 2017), the NIOSH Winter Partner's meeting (December 2017), and at the CSTE Conference (June 2017).

Our program manager is involved in the Occupational Health Indicator's workgroup of CSTE and is assisting in evaluating the Occupational Health Indicators that are currently being used. In June, Roberta volunteered to fill a vacancy position within the leadership of the Occupational Health Indicator Workgroup. She was also active in the planning of the annual 2018 CSTE conference.

In 2017, our program pilot tested a new Occupational Health indicator collecting data on occupational eye injuries. In addition, our program provided additional pneumoconiosis data to NIOSH to look deeper at silicosis cases in Colorado.

**ABLES data:** We continue annual reporting of adult elevated blood lead level cases to the NIOSH ABLES national dataset. 2017 data was submitted in April 2018. We continue to follow up with providers and with patients to collect information on elevated blood lead levels. The program continues to participate in the Colorado Lead Coalition meetings and strategic planning sessions to increase the awareness of the surveillance that is being done for workers in Colorado.

**BRFSS data:** The program had our 2014-2015 BRFSS data published in the April 13, MMWR. This publication received nationwide media attention. The article, *Current Marijuana Use by Industry and Occupation- Colorado, 2014-2015*, was the product of the CSTE/ CDC joint workshop to help new authors publish in the MMWR. Roberta Smith was the recipient of a scholarship to attend this training and was the first one in her cohort to have an article published in the MMWR publication.

**Worksite Investigations/ Public Health Responses:** In October 2017, the program produced an investigation report for the Archuleta County Sheriff's Office. The program was made aware of four cases of illness potentially related to exposure to a toxic substance in the Archuleta County Sheriff's Department in Pagosa Springs, Colorado. Our program manager and PI visited the Sheriff's Department to determine whether the reported illnesses may be related to exposures in the Department's building and whether there was an ongoing public health concern. A summary report of our findings was sent to the Sheriff's Department in November.

The program assisted our CDPHE Tox Call hotline with citizen's concerns about exposure scenarios. One call was from concerned tenants of a rented house in Longmont, CO. The tenants had elevated blood mercury levels and were concerned that the source was within the house that they were renting. Our program went to the home with the landlord and used mercury monitoring instruments to assess any exposure risks. None were found in the home.

In January 2018, the program assisted San Juan Basin Public Health with information on radon due to an indoor air quality concern in their county.

In June 2018, Roberta conducted a site visit to a vocational school in Colorado Springs that was complaining of indoor air quality issues and also had a student that received emergency care services for elevated carboxyhemoglobin levels. It was recommended that their HVAC system be checked for any leaks or entrainment that might be coming into the classrooms

from the adjacent auto shop. In addition, the odors creating the IAQ issues in one office seemed to be due to carpet that was deteriorating. It was recommended that the carpet be removed.

**Fundamental Plus Activities:** In September 2017 at the WestON meeting, the Colorado Program manager helped Kyla Retzer (NIOSH Western States Division) host a lunch meeting to launch an Oil and Gas working group. The group was developed with the collaboration of the New Mexico and Wyoming occupational health programs. This initial meeting brought together the NIOSH funded states that have an interest in occupational health and safety in the oil and gas industry. Since that formation, the group has met monthly to discuss data collection so a white paper focusing on health and safety can be produced between the group. This project has also been submitted as an abstract to the OSHA oil and gas conference in December 2018. Roberta and Kyla facilitated a round table discussion on our data collection methods at the 2018 CSTE Annual conference. They will also be co-presenting this initiative at the WestON meeting in September 2018.

### **Partnerships and Collaborations:**

One of the specific aims of the Colorado Occupational Health Program is to establish and strengthen partnerships. The Colorado program has many strategic partnerships to help set priorities and develop targeted public health actions. Internally within the Colorado Department of Public Health and Environment (CDPHE), the program has engaged in projects with the Healthcare Acquired Infections section, Environmental Health, Immunization section, and Air Pollution division. Additionally, data sharing projects for occupational health indicator data collection occur regularly. Partnership within CDPHE is focused on assisting with occupational health related questions, building educational presentations and outreach, and realizing where public health programs overlap with occupational health issues.

Colorado's program manager participates on the board of AIHA's local section and is the leader of the National AIHA Healthcare Working Group -Infection Control subcommittee. Through these memberships, information about Colorado's surveillance programs are being disseminated.

In June and in November 2017, our program along with the Center for Work, Health, and Environment and other key stakeholders hosted two all day trainings for workers in the Colorado marijuana industry. The training in November had over 80 attendees in person and over 25 attendees through a remote webinar. The webinar content has been posted on the learning management system with the Center for Work, Health, and Environment for future access.

Our program participated in two training sessions to provide information on chemical hygiene safety for Environmental Health Sanitarians working within local public health departments. These lectures were conducted in August 2017 in Jefferson and Eagle counties of Colorado. These sanitarians were focused on auditing schools for safety practices. In addition, in May 2018, a presentation was given to sanitarians on local ventilation as an engineering control in school laboratories and work centers.

In 2017, the Colorado Board of Health adopted revisions to Rule 6 CCR 1009-7 concerning the Detection, Monitoring, and Investigation of Environmental and Chronic Diseases. To ensure consistency with the current Centers for Disease Control and Prevention's reference levels for elevated blood lead, the reporting requirements for blood lead tests are updated as follows:

Type of Lead Level	Timeframe for Reporting
Blood lead level $\geq 5 \mu\text{g/dL}$ AND age $\leq 18$ years	7 days
Blood lead level $\geq 5 \mu\text{g/dL}$ if age $>18$ years	30 days
Blood lead level $<5 \mu\text{g/dL}$ AND age $\leq 18$ years	30 days

The program continues to collaborate with the Center for Work, Health and Environment with the development of an online training for occupational health nurses sitting for their COHN credential (this also includes a partnership with the Johns Hopkins education center). The target release date for this project will be in September at the AOHP annual conference.

#### **Additional Funding Awards**

The program applied for and was awarded funding for a pilot project for a grassroots initiative to train Colorado safety professionals on the Youth @Work/ Safety Matters NIOSH youth worker safety program. This funding cycle is from July 1, 2018-June 30, 2019. We look forward to this initial project to further our programs community collaborations across the state.